

## PATENT ABSTRACTS OF JAPAN

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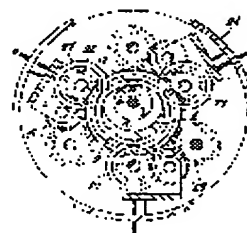
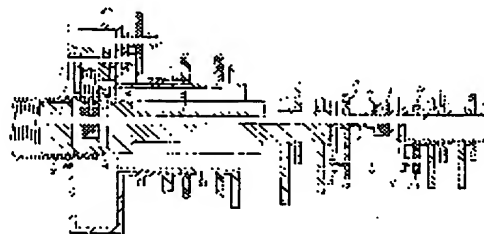
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(54) MANUFACTURING EQUIPMENT FOR RECTILINEAR PROPAGATION PIPE IN SHAPE OF BELLOWS

(57)Abstract:

PURPOSE: To form a large diameter bellows pipe preventing slippage from occurring by providing a free rotation roll at the point of an inside body of rotation and reciprocating an eccentric cam shaft fitted at an eccentric position with a clutch mechanism.

CONSTITUTION: The eccentric cam 4 is pivoted on a notch part 20 at the point of a rotary cylinder 1 located on the inside of a stock pipe 2 and a movable clutch 6 engaging with a fixed clutch 5 is fixed at the rear of an eccentric shaft 3. An outside rotary cylinder 25 is rotated at the same time and in the same direction as an inside rotary cylinder 1. The stock pipe 2 stops rotating and revolves at the same time and in the same direction as the internal and the external rotary cylinder 1, 25. The eccentric shaft 3 makes one rotation of the rotary gear 8 of an eccentric cam shaft as it interlocks with gears having the same gear ratio in the horizontal direction by the rotation of a rotation gear 15 on a secondary rotary cylinder 14. The eccentric cam roll expands the internal wall of the stock pipe 2 gradually and forcedly to form a rectilinear propagation wave on the external side of the pipe. The rectilinear propagation wave formed is advanced one pitch with the rotation of an outside spiral roll simultaneously.



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